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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,394	01/11/2002	Ronald Steiger	713-611	5485

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EXAMINER

HWU, DAVIS D

ART UNIT	PAPER NUMBER
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3752

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/042,394

Applicant(s)

STEIGER, RONALD

Examiner

Davis Hwu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12 and 14-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 8, 17-20 and 25 is/are allowed.
- 6) ☒ Claim(s) 5-7, 9, 12, 14, 16 and 26-28 is/are rejected.
- 7) ☒ Claim(s) 15 and 21-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. Applicant's amendment and remarks of June 29, 2004 are acknowledged and entered.
2. The amendment and remarks have been fully considered.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

4. Claims 5, 6, 9, 14, 16, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. in view of Bert.

Watanabe et al. discloses a method of spraying coating liquid, the method comprising the steps of :

- spraying the coating liquid in form of a spray jet from a liquid atomizer of a spray system; and
- controlling the microclimate in the spray jet by metering an accessory fluid into the spray jet;
- wherein the metering comprises depositing at least a portion of the accessory fluid on an external surface of the liquid atomizer and using the external surface of the atomizer to guide the portion of the accessory fluid into the spray jet (see Figure 4).

Bert teaches a method of spraying coating liquid comprising controlling the microclimate in a spray jet by metering an accessory liquid or catalyst into the spray jet. It would have been obvious to one having ordinary skill in the art at the time the invention was

made to have modified the device of Watanabe et al. by metering an accessory liquid such as a catalyst into the spray jet as taught by Bert to improve the chemical reaction of the spray jet. Regarding claims 27 and 28, the placement of the discharge outlet as recited would have been an obvious of design choice since it would have involved a mere change in the location of the discharge outlet and the device of Watanabe et al. and Bert would still function properly with such an arrangement.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bert in view of Weinstein et al.

Bert discloses the instant invention except for the rotary atomizing element. Weinstein et al. teach a rotary atomizer spray gun in which rotation of the atomizer helps in the atomizing the spray material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the device of Bert by providing a rotary atomizing spray head as taught by Weinstein et al. to help the atomization process of the spray liquid.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bert. Regarding using several discharge outlets depositing the accessory liquid in the spray jet at a number of locations as recited, it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

7. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bert in view of Otake et al.

Bert discloses the instant invention except for the accessory liquid being a thinner. Otake et al. teach a method of spray coating in which a substrate is coated with a

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solution of coating material and solvent in which solvents are also known as thinners. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the method of Bert by metering a thinner to the coating material as taught by Otake et al.

Allowable Subject Matter

8. Claims 1-4, 8, 17-20, and 25 are allowed.
9. Claims 15, 21-24 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davis Hwu whose telephone number is 703-305-1663.

The examiner can normally be reached on M-F 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Y. Mar can be reached on (703)308-2087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Davis Hwu